Glenn Research Center Lewis Field Cleveland, Ohio 44135-3191



Aerospace/Mechanical Engineer Student Trainee Position

Research and Technology Directorate (R)
NASA Glenn Research Center, Cleveland, OH

Job Description: Co-op student will perform engineering duties by rotating semesters into

various branches in the Research and Technology Directorate (R-5000). Assignments will match students' interests and the organizations' needs. Possible assignments may be in the Controls and Dynamics Branch (RIC-5530), the Electric Propulsion Branch (RPP-5430), the Acoustics Branch (RTA-5940), the Combustion Branch (RTB-5830), the Compressor Branch (RTC-5810), the Icing Branch (RTI-5840), the Inlet Branch (RTL-5850), the Nozzle Branch (RTN-5860), the Propellant Systems Branch (RTP-5870), the Engine Systems Branch (RTS-5880), the Turbine Branch (RTT-5820), the Combustion and Reacting Systems Branch (RUC-6711) and the Fluid Physics and Transport Branch (RUF-6712) of the NASA Glenn Research Center's Research and Technology Directorate. The student will perform computational analyses, fluid physics studies and experimental research, working in wind tunnels and other test facilities. This work may include defining experimental hardware and computing requirements, as well as reduction and post-processing of experimental data. Work includes knowledge and understanding of fluid mechanics. The student will work closely with senior personnel. Complexity of tasks will be increased as

student gains experience.

Length of Position: Alternating quarters/semesters until graduation.

Job Openings: 1 position available

Minimum Eligibility: Junior in Aerospace or Mechanical Engineering

GPA 3.0 (4.0 scale) United States Citizen

Enrolled as a full-time student

Enrolled in university's co-op program

Must be recommended by appropriate staff member at University. Major field of study should match Branch assignments listed above.

Salary Range: Based on 2004 Office of Personnel Management salary table:

\$11.67 - \$14.55 per hour (undergraduate student)

\$16.17 per hour + (graduate student)

Glenn Research Center Lewis Field Cleveland, Ohio 44135-3191



Electrical, Electronic or Computer Engineer Student Trainee Position

Research and Technology Directorate (R) NASA Glenn Research Center, Cleveland, OH

Job Description:

Co-op student will perform engineering duties by rotating semesters into various branches in the Research and Technology Directorate (R-5000). Assignments will match students' interests and the organizations' needs. Possible assignments may be in the in Digital Communications Branch (RCD-5650), the Communication System Integration Branch (RCI-6120), the Satellite Networks and Architecture Branch (RCN-5610), the Controls and Dynamics Branch (RIC-5530), the Optical Instrumentation and NDE Branch (RIO-5520), the Sensors and Electronics Branch (RIS-5510), the

Electrochemistry Branch (RPC-5420), the Advanced Electrical Systems Branch (RPE-5450), and the Electro-Physics Branch (RPY-5480). The student will work closely with researchers in the branches to develop and test advanced components and systems for Power and Propulsion,

Instrumentation and Controls, and Space and Terrestrial Communications applications. The student will perform computational simulation and experimental research, which may include defining simulation requirements and experimental hardware, as well as conducting device fabrication and

testing. Complexity of the research will increase as the student gains

experience.

Length of Position: Alternating quarters/semesters until graduation.

Job Openings: 1 position available

Minimum Eligibility: Junior in Electrical, Electronics or Computer Engineering

> GPA 3.0 (4.0 scale) United States Citizen

Enrolled as a full-time student

Enrolled in university's co-op program

Must be recommended by appropriate staff member at University. Major field of study should match Branch assignments listed above.

Salary Range: Based on 2004 Office of Personnel Management salary table:

\$11.67 - \$14.55 per hour (undergraduate student)

\$16.17 per hour + (graduate student)

Glenn Research Center Lewis Field Cleveland, Ohio 44135-3191



Bio Science Engineering or Physics Student Trainee Position

Research and Technology Directorate (R) NASA Glenn Research Center, Cleveland, OH

Job Description: Co-op student will perform engineering or physics duties by rotating semesters into

various branches in the Research and Technology Directorate (R-5000).

Assignments will match students' interests and the organizations' needs. Possible assignments may be in the Bio Science and Technology Branch (RUB) or the Fluid Physics and Transport Branch (RUF-6712). The student will work closely with researchers in the branches to develop and test advanced components and systems for microgravity science, bio science and fluid physics experiments.

Length of Position: Alternating quarters/semesters until graduation.

Job Openings: 1 position available

Minimum Eligibility: Junior in Engineering or Physics Field with coursework in the areas

of Bio Science or Physics related to fluid physics and/or microgravity.

GPA 3.0 (4.0 scale) United States Citizen

Enrolled as a full-time student

Enrolled in university's co-op program

Must be recommended by appropriate staff member at University.

Salary Range: Based on 2004 Office of Personnel Management salary table:

\$11.67 - \$14.55 per hour (undergraduate student)

\$16.17 per hour + (graduate student)

Glenn Research Center Lewis Field Cleveland, Ohio 44135-3191



Materials or Chemical Engineer Student Trainee Position

Research and Technology Directorate (R) NASA Glenn Research Center, Cleveland, OH

Job Description: Co-op student will perform materials or chemical engineering duties by rotating

semesters into various branches in the Research and Technology Directorate (R-5000). Assignments will match students' interests and the organizations' needs. Possible assignments may be in the Sensors and Electronics Branch (RIS-5510), Ceramics Branch (RMC-5130), the Durability & Protective Coatings Branch (RMD-5160), the Advanced Metallics Branch (RMM-5120), the Polymers Branch (RMP-5150), the Electrochemistry Branch (RPC-5420) the Electro-Physics Branch (RPY-5480), and the Life Prediction Branch (RSL-5920). The student will work closely with researchers in some of these branches to develop and test advanced materials for high temperature propulsion, power, structures and instrumentation applications. The student will perform experimental and computational research, which may include developing ceramic and ceramic matrix composite materials for high temperature applications, environmental protective coatings, computational materials modeling, nanotechnology, materials for electrochemistry, fuel cell, and battery applications, and electronic

materials for electrochemistry, fuel cell, and battery applications, and electron materials. Complexity of the materials development or evaluation tasks will

increase as the student gains experience.

Length of Position: Alternating quarters/semesters until graduation.

Job Openings: 1 position available

Minimum Eligibility: Junior in Materials or Chemical Engineering, Chemistry or Physics

GPA 3.0 (4.0 scale) United States Citizen

Enrolled as a full-time student

Enrolled in university's co-op program

Must be recommended by appropriate staff member at University. Major field of study should match Branch assignments listed above.

Salary Range: Based on 2004 Office of Personnel Management salary table:

\$11.67 - \$14.55 per hour (undergraduate student)

\$16.17 per hour + (graduate student)

Glenn Research Center Lewis Field Cleveland, Ohio 44135-3191



Mechanical/Structural Engineer Student Trainee Position

Research and Technology Directorate (R) NASA Glenn Research Center, Cleveland, OH

Job Description: Co-op student will perform materials or chemical engineering duties by

rotating semesters into various branches in the Research and Technology Directorate (R-5000). Assignments will match students' interests and the organizations' needs. Possible assignments may be in the the Life Prediction Branch (RSL-5920), the Structural Mechanics and Dynamics Branch (RSS-5930), the Mechanical Components Branch (RSM-5950) and the Tribology and Surface Science Branch (RST-5960), the Advanced Electrical Systems Branch (RPE-5450) and the Thermal Energy Conversion Branch (RPT-5490). The student will work closely with researchers in the branches to develop and test the structural integrity of advance high temperature materials, perform structural dynamic test and simulations for engine spacecraft components, perform tests on drive train systems for new propulsion concepts, develop advanced seals and bearing technologies, and develop/analyze lubricants for aerospace applications. The student will

perform both computational simulation and experimental research, which may include defining simulation requirements and experimental hardware, as well as conducting device fabrication and testing. Complexity of tests

and simulations will increase as the student gains experience

Length of Position: Alternating quarters/semesters until graduation.

Job Openings: 1 open position

Minimum Eligibility: Junior in Mechanical, Structural or Aerospace Engineering

GPA 3.0 (4.0 scale) United States Citizen

Enrolled as a full-time student

Enrolled in university's co-op program

Must be recommended by appropriate staff member at University. Major field of study should match Branch assignments listed above.

Salary Range: Based on 2004 Office of Personnel Management salary table:

\$11.67 - \$14.55 per hour (undergraduate student)

\$16.17 per hour + (graduate student)

